



FEMA


wood.

Bourbon County

***Floodplain Mapping Project
Data Development Kickoff Meeting***

July 22, 2021

**While we are waiting, please enter your name
and community in the chat box!**



***Your engagement
in this process is
important to the
success of this
project, so thank
you for taking the
time to be here
today!***





Introductions



Kansas Department of Agriculture

Tara Lanzrath, CFM
*Floodplain Mapping
Coordinator*

Joanna Rohlf, CFM
*Floodplain Mapping
Specialist*

William Pace, CFM
*Floodplain Mapping
Specialist*

Steve Samuelson, CFM
State NFIP Coordinator

Cheyenne Sun Eagle
NFIP Specialist

FEMA – Region VII

Andy Megrail
Regional Project Officer

Wood Environment & Infrastructure Solutions

Joe File, PE, CFM
*Senior Associate /
Program Manager*

Maria Neeland, PE, CFM
Engineer

Today's Goals

Share details on the mapping project

Get initial feedback on modeling methods

Review future steps

Background

Background








- Osage Custom Watershed BLE Project
 - *Kick-off Meeting and BLE Review: October 22, 2019*
 - *Discovery Meeting: February 5, 2020*
- Lower Neosho Custom Watershed BLE Project
 - *Kick-off Meeting and BLE Review: November 19, 2019*
 - *Discovery Meeting: April 15, 2020*

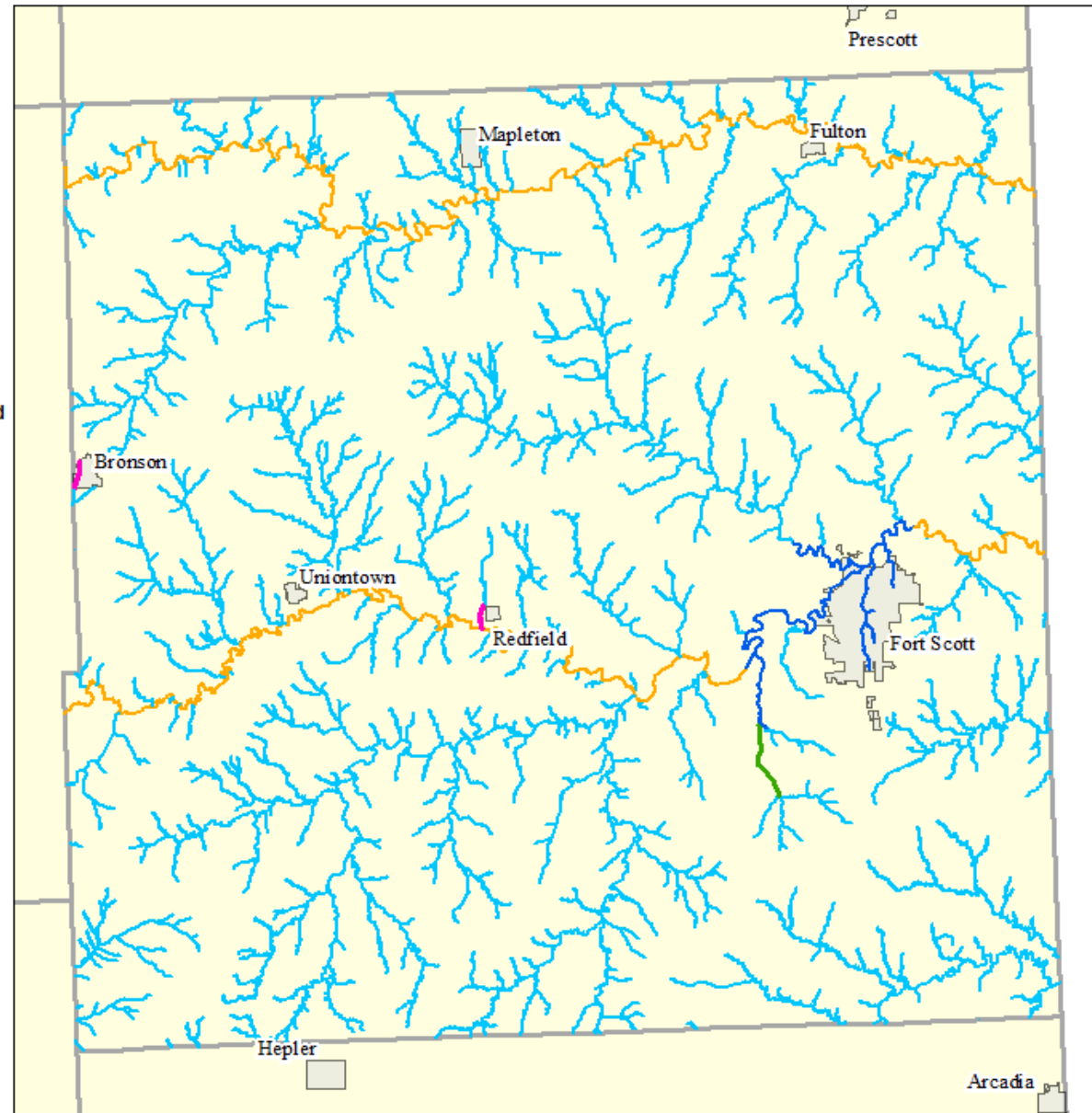
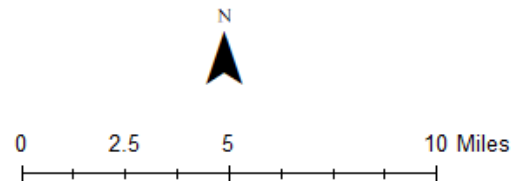
Background

- Bourbon County Effective Mapping is dated January 2009 with a PMR done in March of 2016 for the City of Fort Scott.
- Through Discovery and conversations with County stakeholders, it was determined that updated modeling and mapping would benefit Bourbon County, with the exception of the detailed modeling done for Fort Scott.

Review of the Work Ahead and How We Propose Doing It

Scoped Studies

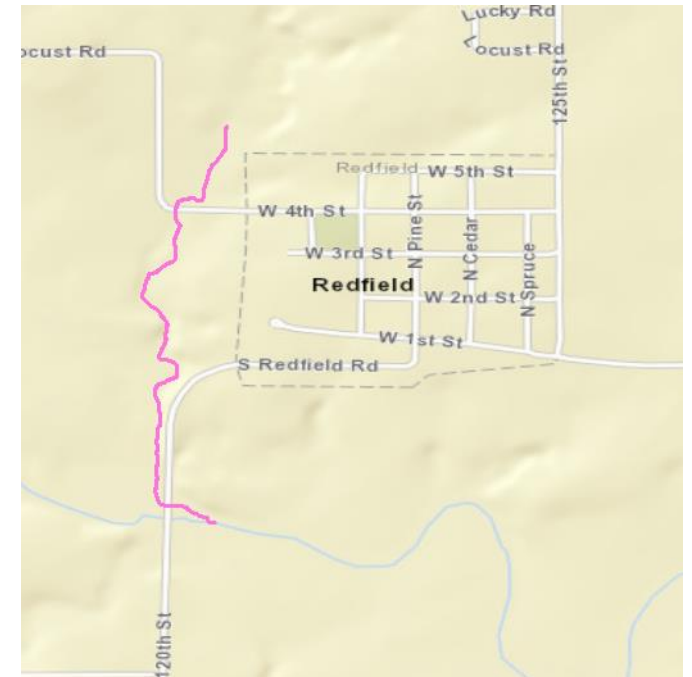
-  **New Zone A - Excess Rainfall on Grid**
New Zone A studies will be developed for these streams using 2D "excess rainfall-on-grid" hydrology and 2D Hec-Ras hydraulics.
-  **New Zone A - Gage Analysis**
New Zone A studies will be developed for these streams using 2D "excess rainfall-on-grid" hydrology calibrated to Gage Analysis Flows, and 2D Hec-Ras hydraulics.
-  **New Enhanced Zone A - Excess Rainfall on Grid**
New Enhanced Zone A studies will be developed for these streams using 2D "excess rainfall-on-grid" hydrology and 2D Hec-Ras hydraulics. Field measured structure data will be incorporated into the modeling.
-  **New Static Zone AE**
New Static Zone AE studies will be developed for these streams using rainfall-runoff modeling. Field measured structure data will be incorporated into the modeling.
-  **Incorporate Existing Zone AE with Floodway Studies for these streams.**





New Enhanced Zone A

- Bronson:
 - 1 Tributary to the Marmaton River
- Redfield:
 - 1 Tributary to the Marmaton River





Static AE

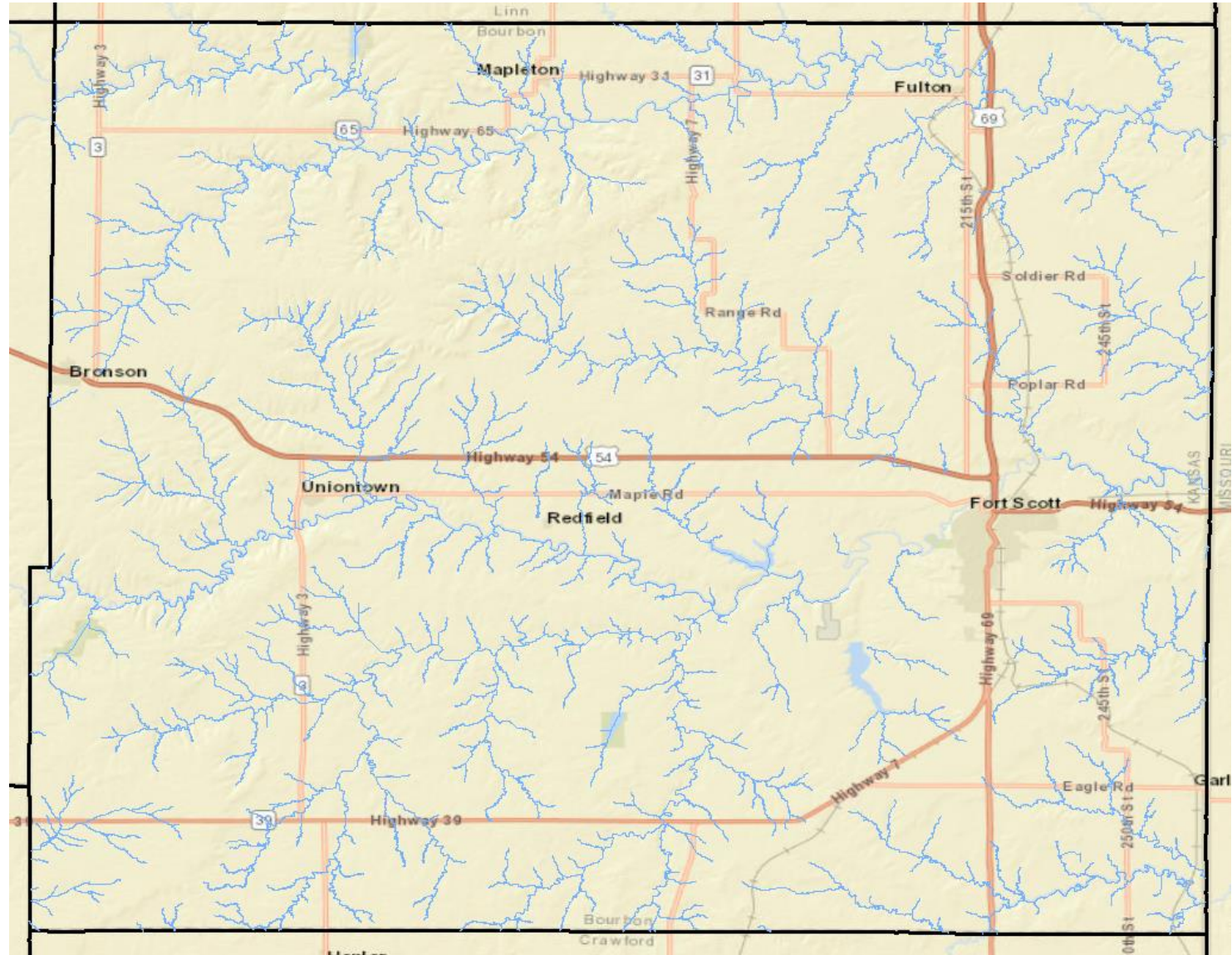
- Fort Scott Lake



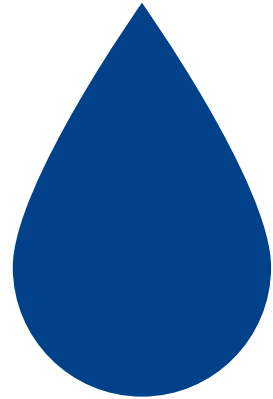


New Zone A

- Remainder of Zone A Streams in the County



Definitions



Hydrology
How Much Water?



Hydraulics
How High Will Water Get?

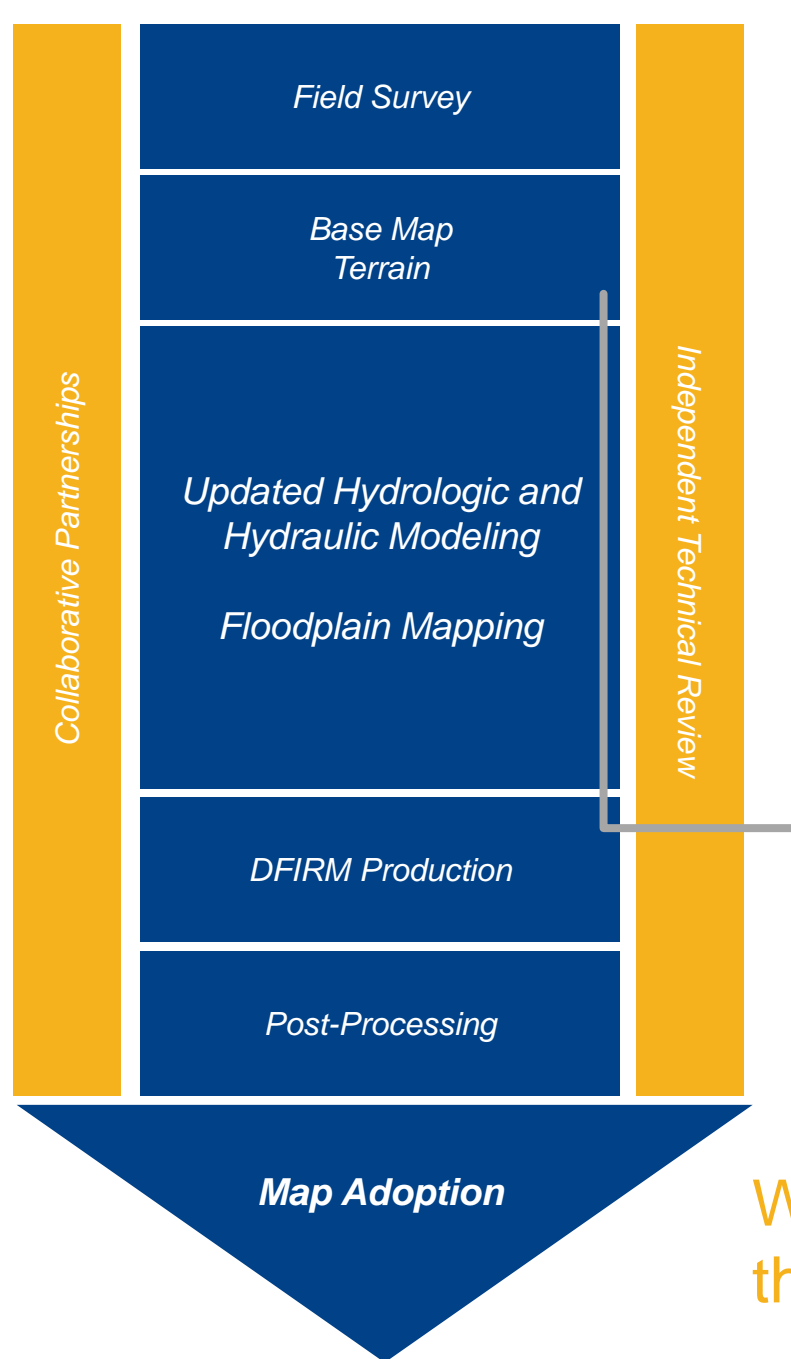


2D Hydraulic Modeling will be used for all the streams in this study

- Enhancements will be made to the BLE modeling that was performed for the Zone A and Static AE streams.
 - Comments made and additional information gathered during the Discovery phase will be used to enhance the modeling
 - Enhanced Zone A and Static AE streams will include field measured data for culverts and bridges
- The hydrology is built into the RAS modeling platform using excess rainfall-on-grid methodology.
 - This will be calibrated to gage analysis flows

Next Steps

Data Development



Project Tasks

1. Field Survey
2. Base Map and Topography Preparation
3. Hydrologic and Hydraulic Modeling
4. Floodplain Mapping
5. DFIRM and FIS Production
6. Post-Preliminary

We are about to begin the modeling task



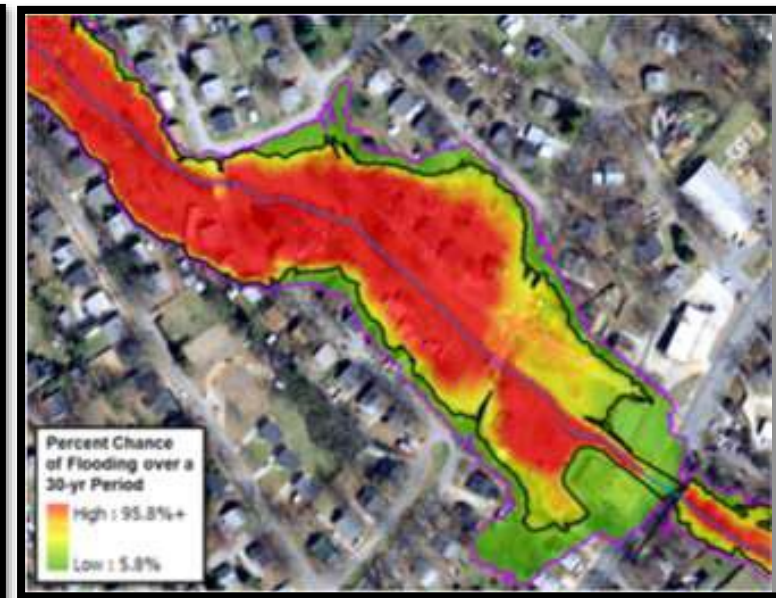
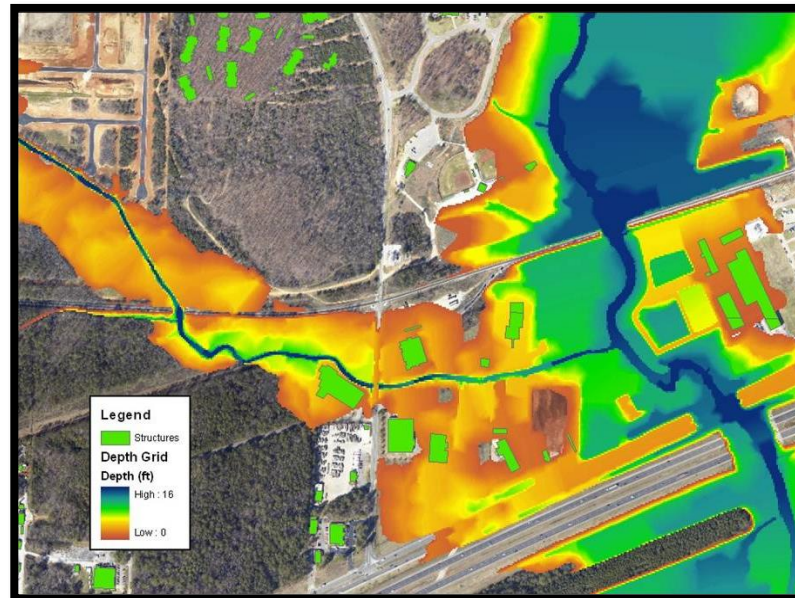
Our Next Steps:

- We will complete the engineering analysis previously described
- We will develop your draft regulatory floodplain maps.
 - Also known as your Flood Insurance Rate Map (FIRM)
- We will develop your draft Flood Insurance Study (FIS).
- We will have a community review period and a public review period




Our Next Steps:

- We will also be developing flood risk products for Bourbon County as part of this project.



Project Timeline



A horizontal timeline bar with three vertical tick marks. The first tick mark is at the left end, the second is in the middle, and the third is at the right end. Below each tick mark is a text block describing a project milestone.

Kick-off Meeting and Initial Community Feedback:
[TODAY!]

Data Development Work:
[Now until fall 2021]

- *Base Map*
- *Topographic Data*
- *Field Survey*
- *Develop Hydrologic and Hydraulic Models*
- *Floodplain Mapping*

Flood Risk Review Meeting:

[~November 2021]

- Your **review** and **feedback** on the draft maps

Project Timeline, continued

Community
comments will
be **addressed**

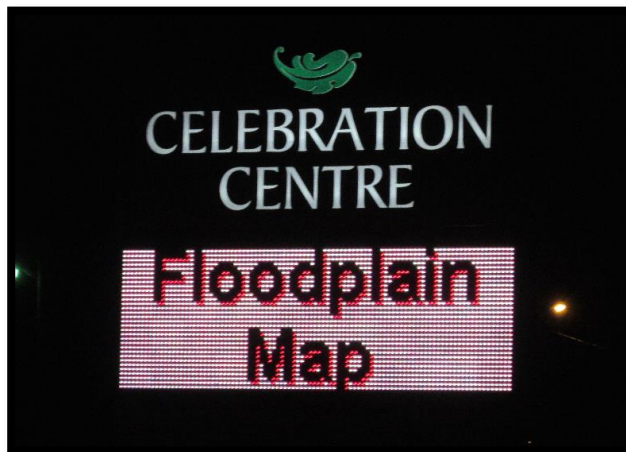
Public review of
the draft maps

- *Includes Public
Open House*

**Preliminary Map
Products**

- *Preliminary DFIRM
Community
Coordination Meeting*

**Post-
Preliminary
Processing**





Key Takeaways

Floodplain Mapping Projects take time

Your involvement in this process will result in better flood information for your community

***DON'T HESITATE TO CALL,
WE ARE HERE TO HELP***

Resources

Online Project Information

Project Website

- Scoping Maps, Project Timeline, Meeting Presentations, Newsletters, Technical Reports, Web Review Map
- <https://www.agriculture.ks.gov/divisions-programs/dwr/floodplain/mapping/mapping-projects/lists/mapping-projects/>

Web Review Map

- Provide comments on areas impacted by past floods, community needs, etc.
- Review of floodplain data

Story Maps

- Project Info
- “Floodplain Current”: Mapping Process ‘Nuts and Bolts’



Any Questions?
